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EXAMINER				
TRUONG, LECHI				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/711,318

Applicant(s)

MASSOUDI, ARASH

Examiner

LeChi Truong

Art Unit

2194

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-9 are presented for the examination.
2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code (e.g. see. Para[9], ln 4) See MPEP § 608.01.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. The language of claims 1-9 raise a question as to whether the claims are abstract ideas and would not result in practical application producing a useful, concrete, and tangible result to form the basic of statutory subject matter under 35 U.S.C 101. For example, a composite software service, a set of connected composite or atomic software services are abstract ideas that do not produce any tangible result<e.g. just a though or just a computation within a processor which does not provide an output thereby creating a tangible result which enables the usefulness to be realized>.

Claim Objections

4. Claim 1-8 are objected to because of the following informalities:

Claim 1, there are error on the phase “one that contains”. Appropriate correction is required to change from “ one that contains” to “ that contains”.

Claim 2, there are error on the phase “the exactly one”. Appropriate correction is required to change from “the exactly one” to “an exactly one”.

Claim 3, there are errors on the phases “the automated guaranteed invocation” and “each software service”. Appropriate corrections are required to change from “the automated guaranteed invocation” to “an automated guaranteed invocation” and change from “each software service” to “each composite software service”.

Claim 4, there are errors on the phases “the state”, “an optionally nested” and “the association of unique ids”. Appropriate corrections are required to change “the state” to “a state” and change from “an optionally nested” to “a nested” and change from “ the association of unique ids” to “ an association of unique ids”.

Claim 5, there are errors on the phases “the association of attributes to the software interface”, “the parameters required” and “the service”. Appropriate corrections are required to change “the association of attributes to the software interface” to “an association of attributes to a software interface”, change “the parameters required” to “ parameters required” and change “ the service” to “ a service”.

Claim 7, there are errors on the phases “the number of times”, “the initial attempt”. Appropriate corrections are required to change from “the number of times” to “a number of times” and change from “the initial attempt” to “an initial attempt”.

Claim 8, there is error on the phrase "the amount". Appropriate corrections are required to change from "the amount" to "an amount".

Abstract Objected

5. The abstract of the disclosure is objected to because of the following informalities: there is an error on the word "campsite". The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "This disclosure concerns, A patent abstract is a concise statement of the technical disclosure of the patent and the abstract should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. Appropriate corrections are required see MPEP § 608.01 (b).

Oath/Declaration

6. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

1. The oath or declaration is defective because:
It does not identify the mailing address of each inventor. A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.
2. The oath or declaration is not dated by the inventor.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim language in the following claims is not clearly understood:

i. As to claim 1, it is not clearly indicated any next steps for guaranteeing the invocation of a composite software service

8. Claim 9 is rejected under 35. U.S.C. 122, second paragraph, as being indefinite in that it fails to point out what is included or exclude by the claim language. This claim is an omnibus type claim because it is indefinite in that it fails to point out what is included or excluded by the claim language see MPEP §2173.05 (r).

Drawings

9. The drawings are objected to under 37 CFR 1.83(a) because they fail to show all step of guaranteeing the invocation as described in the specification. The figure numbers are not labeled in the right place of the draws. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being

amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

10. The use of the trademark (IBM’s MQ-Series) has been noted in this application (specification para [5], ln 3). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 5, 6, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Endicott et al (US. 5, 768588).

12. As to claim 1, Endicott teaches a composite software (the object data if further broken down by the class level/ class, col 3, ln 43-48), guaranteeing the invocation of a composite software service (The class signature is used as a safety mechanism to ensure that client programs are correctly invoking the function embodied in a particular method of a particular object. Client programs that do not provide a call signature that matches the class signature will not be allowed to invoke the selected method, col 3, ln 56-61), a set of connected composite (each object contains as may sets of data as its class is deep in the particular hierarchical tree structure, col 3, ln 44-45/ col 5, ln 45-55).

13. As to claim 5, Endicott teaches the association of attributes to the software interface to define the parameters required for automating the guaranteed invocation of the service(As stated, the call signature[software interface] is used to match against the class signature[parameter] for the class to which the selected method program[attribute] is associated. If the signatures [parameters] match, the location information within the subject interface table entry is used to gain access to the appropriate method table. The method offset is then used to access and invoke the correct method program, col 4, and ln 5-15).

14. As to claim 6, Endicott teaches the association of an attribute to a software interface indicating whether the invocation of the service at runtime should be guaranteed(As stated, the call signature[software interface] is used to match against the class signature for the class to which the selected method program[attribute] is associated. If the signatures match, the location

information within the subject interface table entry is used to gain access to the appropriate method table. The method offset is then used to access and invoke the correct method program, col 4, ln 5-15/ col 3, ln 52-60).

15. As to claim 9, it is rejected for the same reason as claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 2, 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endicott et al (US. Patent 5, 768588) in view of Mutschler (US 6, 253366).

17. As to claim 2, Endicott teaches invocation of a composite software service (The class signature is used as a safety mechanism to ensure that client programs are correctly invoking the function embodied in a particular method of a particular object, col 3, and ln 56-60).

18. Endicott does not teach exactly one invocation. However, Mutschler teaches exactly one invocation (a Class and a list of the names of previously-visited Classes, and is used to invoke the References Entities for the parameter Class and all of its parent Classes. It calls itself

recursively for each of its parent Classes, using the previous Classes list to avoid visiting the same parent more than once, col 15, and ln 66-67 to col 16, ln 1-7).

19. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Endicott with Mutschler to incorporate the feature of exactly one invocation because this avoids the duplication execution of each class in the object oriented programming.

20. **As to claim 3**, Endicott teaches the software service (a particular method of a particular object, col 3, ln 57-59), the automated guaranteed invocation of each software service within a composite service (The class signature is used as a safety mechanism to ensure that client programs are correctly invoking the function embodied in a particular method of a particular object. Client programs that do not provide a call signature that matches the class signature will not be allowed to invoke the selected method, col 3, ln 56-61), containing a set of connected software services(class Root 200, class Personnel 205, col 5, ln 52-55), where any of the contained software service may itself be a composite service that can be nest with other composite service to any depth (Each class which is defined as a subclass of class Personnel 205 will inherit object instances 207 and 209 (not shown for classes Lawyer 215 and Manager 230), For example, class Engineer 220 has been defined as a subclass of class Personnel 205. Class Personnel 205 is itself a subclass of class Root 200, col 5, ln 62-67 to col 6, ln 1-3/ Fig. 2/ The interface table contains an interface table entry for the class to which the object belongs and entries for each of the object's super classes (i.e., one entry for each level the class is deep in the particular hierarchical tree structure, col 3, ln), and Mutschler teaches guaranteed invocation of exactly one or software service(a Class and a list of the names of previously-visited Classes, and

is used to invoke the References Entities for the parameter Class and all of its parent Classes. It calls itself recursively for each of its parent Classes, using the previous Classes list to avoid visiting the same parent more than once, col 15, ln 66-67 to col 16, ln 1-7).

21. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endicott et al (US. Patent 5, 768588) in view of Mutschler (US 6, 253366) and further in view of Huff et al (US. Patent 6,457064 b1).

22. As to claim 4, Endicott teaches nested composite services (Class Root 200 should also be considered to be defined at class-level 0. At class-level 1, classes Personnel 205, Personnel.sub.-- II 255, and Finance 210 have been defined. Class Personnel 205 comprises object instance variables: "object name" 202, "object class" 204, "class-level" 270, col 5, ln 52-56/ Fig.2), remembering the information of the nest composite service (The interface table contains an interface table entry for the class to which the object belongs and entries for each of the object's super classes (i.e., one entry for each level the class is deep in the particular hierarchical tree structure). Each entry contains a tuple. The tuple comprises location information about the method table for the subject class-level, an offset for the object data associated with that particular class-level, and a class signature, col 3, ln 46-53).

23. Endicott and Mutschler do not teach capable of remembering the state of execution of optionally service is used together with the association of unique ids to services to implement the automated exactly one invocation of services. However, Huff teaches capable of remembering the state of execution of and optionally nested composite service is used together with the

association of unique ids to services to implement the automated exactly one invocation of services (An input wait table associated with the process is structured for monitoring and storing information [remembering] on the active connection threads [status] where the information indicates which active connection threads are executing an input event, col 3, ln 30-36/Thread identifier 208 is a unique value that identifies a thread [service] and is different from the thread's file descriptor. The thread identifier 208 is used in connection with posting a thread semaphore or thread conditional wait variable 212. In the described embodiment, the thread conditional wait variable 212 is a flag that indicates whether the thread is in an input wait state or execution state [state]. A polling thread scans the table to determine [guarantee] which thread or threads have input events directed to them and sets variable 212 to "GO." Another thread or light weight process then starts that thread. Thus, wait variable 212 is a thread-specific flag used to indicate the state of a thread, col 7, ln 17-24/ triggering the selected one of the active connection thread to handle the input event, col 11, ln 55-57).

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Endicott and Mutschler with Huff to incorporate the feature of capable of remembering the state of execution of optionally service is used together with the association of unique ids to services to implement the automated exactly one invocation of services because this greatly reduces the consumption of the process to execute by making system call and allows the calls to be assigned to processes only when needed.

25. **Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endicott et al (US. Patent 5, 768588) in view of Just (US 7, 171672).**

26. As to claim 7, Endicott teaches guaranteed invocation (ensure that client programs are correctly invoking the function embodied in a particular method of a particular object, col 3, ln 56-60).

27. Endicott does not teach the association of a numerical attribute to the software interface indicating the number of times to retry the invocation of a service, if the initial attempt to invoke the service failed due to any internal or external system of network connectivity problems. However, Just teaches the association of a numerical attribute to the software interface indicating the number of times to retry the invocation of a service, if the initial attempt to invoke the service failed due to any internal or external system of network connectivity problems. (the configuration file 78 may, as noted earlier, include one or more values related to error handling. For example, for certain types of errors that might be encountered during distributed application operations, it might make sense to provide for a certain number of "retries," based on the idea that such errors might arise from transient conditions and so might be overcome by re-attempting the failed operation. A network communication failure represents a simple example of the sort of error that might be overcome through this "retry" approach, col 7, ln 12-22).

28. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Endicott with Just to incorporate the feature of the association of a numerical attribute to the software interface indicating the number of times to retry the invocation of a service, if the initial attempt to invoke the service failed because this allows the developer to tailor the desired error handling behavior of the generated proxy, and

offers additionally flexibility, such as the opportunity to provide server implementation location information to the proxy generator.

29. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endicott et al (US. Patent 5, 768588) in view of Grigsby (US 6,804773).

30. As to claim 8, Endicott teaches guaranteed invocation (ensure that client programs are correctly invoking the function embodied in a particular method of a particular object, col 3, ln 56-60).

31. Edicott does not teach the association of a numerical attribute to the software interface indicating the amount of time pause between entries. However, Grigsby teaches the association of a numerical attribute to the software interface indicating the amount of time pause between entries (The DoAction function receives a Uniform Resource Locator (URL) or other location identifier as an argument. The URL identifies information that is to be obtained by the function DoAction. For example, a given URL may be <http://server.company.com/packages/update.cab>. The DoAction function may also receive other arguments such as the time to wait between retries, col 2, ln 31-39).

32. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Endicott with Grigsby to incorporate the feature of the association of a numerical attribute to the software interface indicating the amount of time pause between entries because this allows tasks to be performed on larger number of computer systems in an efficiency manner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272-3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/LeChi Truong/

Examiner, Art Unit 2194

LeChi Truong

April 16, 2008